SYSTEM AND METHOD FOR COMMUNICATING ON A VIRTUAL RING IN AN INTERNET PROTOCOL NETWORK

Abstract

A node within a network comprising a transport layer protocol for multicasting datagrams on a virtual ring. Each node on the virtual ring is logically connected to two neighbour nodes through virtual connections. A virtual ring datagram is sent to a downstream neighbour node on the virtual ring and a token is received. The virtual ring is identified and the token is forwarded to the downstream neighbour node. If the received datagram is a virtual ring datagram, the virtual ring is identified and the node originator of the received virtual ring datagram is checked. If the received virtual ring datagram has not been locally originated, data in the virtual ring datagram is processed and the virtual ring datagram is forwarded to the downstream neighbour node on the virtual ring. If the received virtual ring datagram has been locally originated, the virtual ring datagram is removed from the virtual ring.